APPENDIX E

East Diversion – Provisions for Temporary Irrigation Water During Fish Screen Replacement

APPENDIX E

EAST DIVERSION – Temporary Irrigation Flows During Fish Screen Construction

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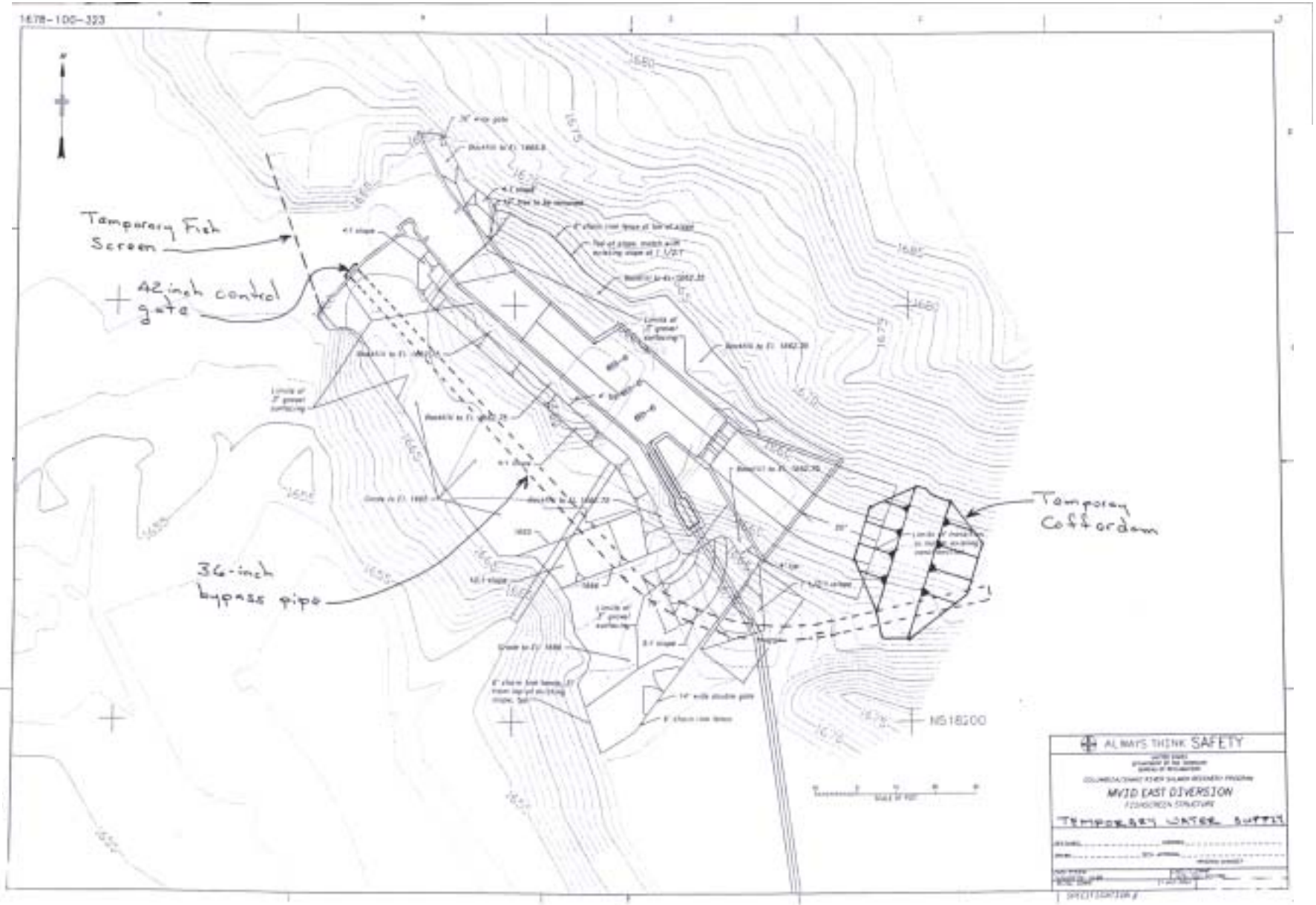
Modified by BPA

Between 20 and 25 cubic feet per second (cfs) of water flow would be required to meet irrigation system user demands beginning on May 1, 2004 and continuing until the new fish screens are operational, on about July 31, 2004. If the construction time period extends beyond July 31, and construction of the new screens are not fully operational, additional water up to the water right of 30 cfs, may be required.

To supply the irrigation water until the diversion can be fully operational with the new traveling belt screen, a temporary water supply system consisting of a fish screen, conveyance pipe and flow control gate at the project site would be built. The fish screens would be installed at the existing headworks structure near the canal entrance. The screens would consist of two 8-foot high by 20-foot long synthetic mesh screen panels with 3/32-inch maximum size openings. The panels would be installed nearly parallel to the flow of the Methow River from the existing bank to the concrete headworks structure wall. The screens would be attached to the concrete wall and sealed to the bottom of the river and river bank to prevent fish from bypassing the screen and entering the headworks area. The screens would be held in position by a steel or timber structure that would also allow access for inspection of the screens. An automated air bubbler system would be provided to remove debris from the face of the temporary screens. An air compressor, air receiver tank and electric control valves and a timer would provide air to a series of pipes located behind the fish screens. Small openings in the pipes would direct a jet of air towards the back of the fish screen to push debris from the face of the screen and allow the debris to be carried downstream by the river current.

A 36-inch diameter smooth interior, corrugated exterior, high density polyethylene pipe will penetrate the headworks structure wall from that point to the existing canal, downstream of the new fish screen structure. The pipe would be buried between 8 and 12-feet deep from the current grade by about 200 feet long to avoid interference with the existing and proposed fish bypass. A 42-inch square control gate would be bolted to the front face of the headworks structure wall over the pipe penetration to allow the flow through the pipe to be adjusted. A sand bag, ecology block, or clean cobble cofferdam would be constructed in the existing canal between the new fish screen structure and the pipe outlet to prevent water from the canal from entering the excavation for the new fish screen structure.

Once the new fish screens are operational, the water bypass control gate would be closed and locked, the end of the 36-inch-diameter pipe will be cut off, capped and buried in the bank of the canal. The temporary fish screens and air bubbler system would be removed. The cofferdam would be removed from the canal and the canal reshaped to restore its hydraulic capacity.


1678-100-323
Temporary Fish Screen
42-inch control gate
36-inch bypass pipe
Temporary Cofferdam
N518200
ALWAYS THINK SAFETY
MVID EAST DIVERSION
TEMPORARY WATER SUPPLY